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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/498,749	02/07/2000	Noboru Masuda	33216M038	9264

7590 05/13/2002

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EXAMINER

LAMB, BRENDA A

ART UNIT	PAPER NUMBER
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1734

DATE MAILED: 05/13/2002

8

Please find below and/or attached an Office communication concerning this application or proceeding.

MF-8

Office Action Summary

Application No.

09/498,749

Applicant(s)

Masuda et al

Examiner

LAMB

Group Art Unit

1734

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 11/21/01
- ☒ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-3, 7-23, 26-30 and 40-48 is/are pending in the application.
- ☐ Of the above claim(s) 40-48 is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-3, 7-23 and 26-30 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 7
- ☐ Interview Summary, PTO-413
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

Office Action Summary

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Newly submitted claims 40-48 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the apparatus as claimed can be used to practice another and materially different process such as one wherein the nozzle is in contact with the base material and not arranged at a predetermined distance ^{from a base material} as set forth in newly presented method and wherein the base material is conveyed by air jets and not by a back roll past the nozzle.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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Claims 1-3, 7-23 and 26-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Claassen.

Claassen teaches the design of an intermittent coating apparatus comprised of a nozzle for applying coating to the base and an intermittent coating supply means is comprised of the following elements: a coating tank/reservoir, a flow path/route/way supplying coating from the coating tank, the flow path includes a feeding side/point/opening in communication with the nozzle and a return side in fluid communication with the coating tank/ reservoir; a two way valve positioned between the flow path segment and side /opening of flow path in fluid communication with the nozzle; and a second valve 25 is positioned between flow path segment and side/opening of the flow path in communication with the coating, the second valve is a two-way valve or on/off valve having two different positions providing two different flow path for the coating entering through bore 20-one position to provide a flow path of coating to pump/coating tank/reservoir through piece 28 and another position to provide a flow path of coating through first valve and out through slit 2. Further, it is noted that Claassen teaches at column 4 lines 61-67 may be modified so as to serve as a three-way cock or three way valve which would suggest to one skilled in the art that the valve 25 as shown in Claassen Figure is not a three way valve. Claassen fails to teach the operating the intermittent coating supply means in the manner set forth in claims 1,7 and 26 or time intervals within the scope of claims 2-3, 8 and 28-~~30~~. However, Claassen teaches operating valves in desired intervals and displacements with respect to each other. Therefore, it is deemed that Claassen microprocessor is structured and arranged to operate valves 9,25 in the manner such that feeding of coating to the nozzle and discharge of coating to the return side occurs within the time interval set forth in the instant claims. With

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respect to claims 9-10, Claassen teaches the coating apparatus includes a pump, pressure relief valve and reservoir which obviously acts as a paint returning means which obviously sucking coating from supply line 20 and returns paint to the nozzle when the valve starts feeding of coating back to the coating applicator. With respect to claim 11, the same rejection applied to claims 9-10 is applied here. The recitation that the operation time as A is greater than B is a method step and does not further limit structure of the claimed apparatus. Furthermore, it is deemed that the Claassen apparatus is structured and arranged to be operated in such a manner dependent on the desired amount of coating applied to the substrate. With respect to claims 12-23, Claassen fails to teach the amount of paint sucked out of the nozzle and flow rate of paint returned to the nozzle. However, it would have been obvious to modify Claassen by using as the pump an adjustable flow rate pump since the use of an adjustable flow rate pump is known in a fluid handling system such as a coating process for the obvious advantage of greater control of the coating process.

Further, it would have been obvious to optimize an amount of coating sucked into the Claassen supply reservoir dependent on process parameters of the coating apparatus as discussed above to controllably drive the Claassen pump using a conventional driving means, piezoelectric element, for the obvious advantage of greater control of the coating process.

Claims 2-3 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

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The recitation in claims 2-3 that the time of feeding of the paint is earlier or starts before the stopping of-discharge of paint to the return side does not further limit the recitation in claim 1 that intermittent coating supply means prevents discharge of coating to the return side at the time of when feeding of the coating is started or in other words coating is prevented from discharge to the return side prior to or at the same time the start of feeding of coating.

Applicant's arguments filed 11/21/01 have been fully considered but they are not persuasive.

It is noted that applicant has not traversed the examiner's assertion that the use of an adjustable flow rate pump is known in a fluid handling system such as in a coating process or the use of a piezoelectric element as part of a conventional driving means; as such it is considered to be as admitted prior art.

Applicant argument's that Claassen fails to teach two two-way valves with valve 25 being a three-way valve is found to be to be non-persuasive. As discussed above, Claassen teaches that valve 25 can be modified to be a three-way valve if desired which teaches against applicant argument that valve 25 is a three-way valve,

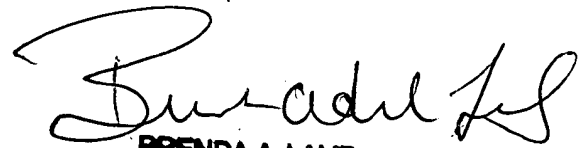
Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to Lamb Brenda at telephone number 703 308-2056.



BRENDA A. LAMB
PRIMARY EXAMINER

Lamb/af

May 9, 2002